Attorney Docket No. 129491 UTILITY First Inventor Sarah Rose Hertel PATENT APPLICATION SYSTEMS AND METHODS FOR COMBINING AN ANATOMIC STRUCTURE AND METABOLIC ACTIVITY FOR AN OBJECT Title TRANSMITTAL (Only for new nonprovisional applications under 37 CFR 1.53(b) Express Mail Label No. EV299866099US Mail Stop Patent Application APPLICATION ELEMENTS Commissioner for Patents ADDRESS TO: See MPEP chapter 600 concerning utility patent application contents. PO Box 1450 Alexandria, VA 22313-1450 CD-ROM or CD-R in duplicate, large table or Fee Transmittal Form (e.g. PTO/SB/17) Computer Program (Appendix) (Submit an original and a duplicate for fee processing.) Nucleotide and/or Amino Acid Sequence Submission Applicant claims small entity status. (if applicable, all necessary) See 37 CFR 1.27. Computer Readable Form (CRF) Specification [Total Pages 22 Specification Sequence Listing on: (preferred arrangement set forth below, - Descriptive title of the invention ii. paper - Cross Reference to Related Applications - Statement Regarding Fed sponsored R & D Statements verifying identify of above copies - Reference to sequence listing, a table, ACCOMPANYING APPLICATION PARTS or a computer program listing appendix - Background of the Invention Assignment-Papers (cover sheet & document(s)) [3 pages] - Brief Summary of the Invention - Brief Description of the Drawings (if filed) 37 CFR 3.73(b) Statement Power of Attorney [pages] - Detailed Description (when there is an assignee) - Claim(s) - Abstract of the Disclosure English Translation Document (if applicable) Drawing(s) (35 U.S.C. 113) [Total Sheets 5] Information Disclosure Statement Copies of IDS Citations (IDS)/PTO-1449 Declaration & Power of Attorney [Total Pages 2] 13. Preliminary Amendment Newly executed (original or copy) Return Postcard (MPEP 503) (Should be specifically itemized) Copy from a prior application (37 CFR 1.63 (d)) (for continuation/divisional with Box 17 completed) Certified Copy of Priority Document(s) **DELETION OF INVENTOR(S)** (if foreign priority is claimed) Signed statement attached deleting inventor(s) Non Publication Request under 35 U.S.C. 122 named in the prior application, see 37 CFR (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent. 1.63(d)(2) and 1.33(b). Application Data Sheet. See 37 CFR 1.76 18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76: Continuation Divisional Continuation-in-part (CIP) of prior application No. Prior application information: Group Art Unit: Examiner For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts. 19. CORRESPONDENCE ADDRESS \bowtie Customer Number or Bar Code Lahel Correspondence address below (Insert Customer No. or Attach bar code label here) Dean D. Small Name Armstrong Teasdale LLP Address One Metropolitan Square, Suite 2600 State MO Zip Code City St. Louis 63102 Country Telephone 314.621.5070 US Fax 314.621.5065 Name (Print/Type) 34,730 Dean D. Small Registration No. (Attorney/Agent) Date Signature July 17, 2003 Certificate of Express Mail certify that the documents listed on this form are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. § 1.10 on the date indicated above in an envelope addressed to: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. July 17, 2003 Dean D. Small (Printed Name of Person Mailing Correspondence) Date (Signature of Person Mailing Correspondence)

PTO/SB/17 (05-03)
Approved for use through 04/30/2003, OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

EEE TOANGMITTAL	Complete if Known
FEE TRANSMITTA	Application Number
for FY 2003	Filing Date July 17, 2003
	First Named Inventor Sarah Rose Hertel
Effective 01/01/2003. Patent fees are subject to annual revision.	Examiner Name
Applicant claims small entity status. See 37 CFR 1.27	Art Unit
TOTAL AMOUNT OF PAYMENT (\$) 1048.00	Attorney Docket No. 129491
METHOD OF PAYMENT (check all that apply)	FEE CALCULATION (continued)
Check Credit card Money Other None	3. ADDITIONAL FEES
Order L	Large Entity Small Entity
Denosit	Fee Fee Fee Fee Description Code (\$) Code (\$) Fee Paid
Account Number	1051 130 2051 65 Surcharge - late filing fee or oath
Deposit Armstrong Teasdale LLP	1052 50 2052 25 Surcharge - late provisional filing fee or
Name	cover sheet 1053 130 1053 130 Non-English specification
The Director is authorized to: (check all that apply) Charge (ee(s) indicated below Credit any overpayments	1812 2,520 1812 2,520 For filing a request for exparte reexamination
Charge any additional fee(s) during the pendency of this application	1804 920* 1804 920* Requesting publication of SIR prior to
Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.	1805 1,840* 1805 1,840* Requesting publication of SIR after Examiner action
FEE CALCULATION	1251 110 2251 55 Extension for reply within first month
1. BASIC FILING FEE	1252 410 2252 205 Extension for reply within second month
Large Entity Small Entity	1253 930 2253 465 Extension for reply within third month
Fee Fee Fee Fee Fee Description Fee Paid Code (\$) Code (\$)	1254 1,450 2254 725 Extension for reply within fourth month
1001 750 2001 375 Utility filing fee 750.00	1255 1,970 2255 985 Extension for reply within fifth month
1002 330 2002 165 Design filing fee	1401 320 2401 160 Notice of Appeal
1003 520 2003 260 Plant filing fee	1402 320 2402 160 Filing a brief in support of an appeal
1004 750 2004 375 Reissue filing fee	1403 280 2403 140 Request for oral hearing
1005 160 2005 80 Provisional filing fee	1451 1,510 1451 1,510 Petition to institute a public use proceeding 1452 110 2452 55 Petition to revive - unavoidable
SUBTOTAL (1) (\$) 750.00	1453 1,300 2453 650 Petition to revive - unintentional
2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE	1501 1,300 2501 650 Utility issue fee (or reissue)
Extra Claims below Fee Paid	1502 470 2502 235 Design issue fee
Total Claims 25 -20** = 5 X 18 = 90 Independent 5 -3** = 2 X 84 = 168	1503 630 2503 315 Plant issue fee
Independent 5 - 3** = 2 X 84 = 168 Multiple Dependent	1460 130 1460 130 Petitions to the Commissioner
Large Entity Small Entity	1807 50 1807 50 Processing fee under 37 CFR 1.17(q)
Fee Fee Fee Fee Description	1806
Code (\$) Code (\$) 1202 18 2202 9 Claims in excess of 20	property (times number of properties)
1201 ,84 2201 42 Independent claims in excess of 3	1809 750 2809 375 Filing a submission after final rejection (37 CFR 1.129(a))
1203 280 2203 140 Multiple dependent claim, if not paid	1810 750 2810 375 For each additional invention to be examined (37 CFR 1.129(b))
1204 84 2204 42 ** Reissue independent claims over original patent	1801 750 2801 375 Request for Continued Examination (RCE)
1205 18 2205 9 ** Reissue claims in excess of 20 and over original patent	1802 900 1802 900 Request for expedited examination of a design application
SUBTOTAL (2) (\$) 258.00	Other fee (specify)
**or number previously paid, if greater; For Reissues, see above	*Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) 40.00
SUBMITTED BY	(Complete (if applicable)
Name (Print/Type) Dean D. Small	Registration No. (Attorney/Agent) 34,730 Telephone 314-621-5070
Signature Deem Sall	Date July 17, 2003
MADNING: Information on this form m	any hanama public. Credit card information should not

be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450, DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.